

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Hanson et al.	)	Group Art Unit:	1655
		)		
Serial No.:	Unknown	)	Examiner:	Unknown
	(Parent: 09/407,818)	)		(Parent: F. Lu)
		)		
Filed:	Herewith	)		
	(Parent: 28 September 1999)	)		

For: PRIMERS FOR USE IN DETECTING BETA-LACTAMASES

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
ATTN: BOX PATENT APPLICATION  
Washington, D.C. 20231

Dear Sir:

Prior to taking up the above-identified application for examination, please amend the application as follows:

**In the Specification**

Please insert the following Statement of Related Applications section at page 1 (immediately after the "Title" heading) as instructed in the Request for Filing a Divisional Application filed herewith:

**--Statement of Related Applications**

This application is a divisional of U.S. Patent Application Serial No. 09/407,818, filed September 28, 1999, entitled "Primers for Use in Detecting Beta-Lactamases," which claims the benefit of U.S. Patent Application Serial No. 60/102,181 filed, September 28, 1998, entitled "Primers for Use in Detecting Beta-Lactamases," and U.S. Patent Application Serial No. 60/121,765, filed February 26, 1999, also entitled "Primers for Use in Detecting Beta-Lactamases." All three applications are incorporated herein by reference.--

**In the Claims**

Please cancel claims 1-11, 18-38, and 50, without prejudice. Please amend claims 12-17, 40, 42, 44, 46, 48, and 49. The amended claims are provided below in clean form. Per 37 C.F.R. §1.121, the amended claims are also shown in Appendix A with notations to indicated changes made.

12. **(Once Amended)** A primer selected from the group of:

5' - CGT CGC TCA CCA TAT CTC CC - 3' (SEQ ID NO:34);

5' - CCT CTC GTG CTT TAG ACC CG - 3' (SEQ ID NO:35); and complements thereof.

13. **(Once Amended)** A primer selected from the group of:

5' - CGC TGG GAA ACC TAT TCG G - 3' (SEQ ID NO:36);

5' - CTG CCA TCC AGT TTC TTC GGG - 3' (SEQ ID NO:37); and complements thereof.

14. **(Once Amended)** A primer selected from the group of:

5' - GGT GGC ATT GAC AAA TTC TGG - 3' (SEQ ID NO:38);

5' - CCC ACC ATG CGA CAC CAG - 3' (SEQ ID NO:39); and complements thereof.

15. **(Once Amended)** A primer selected from the group of:

5' - TGT GCA ACG CAA ATG GCA C - 3' (SEQ ID NO:40);

5' - CGA CCC CAA GTT TCC TGT AAG TG - 3' (SEQ ID NO:41); and complements thereof.

16. **(Once Amended)** A primer selected from the group of:

5' - AGG CAC GAT AGT TGT GGC AGA C - 3' (SEQ ID NO:42);

5' - CAC TCA ACC CAT CCT ACC CAC C - 3' (SEQ ID NO:43); and complements thereof.

17. **(Once Amended)** A method for identifying a beta-lactamase in a clinical sample, the method comprising:

providing a pair of oligonucleotide primers specific for nucleic acid characteristic of the OXA family of beta-lactamase enzymes, wherein one primer of the pair is complementary to at least a portion of the beta-lactamase nucleic acid in the sense strand and the other primer of each pair is complementary to at least a portion of the beta-lactamase nucleic acid in the antisense strand;

annealing the primers to the beta-lactamase nucleic acid;

simultaneously extending the annealed primers from a 3' terminus of each primer to synthesize an extension product that is complementary to the nucleic acid strands annealed to each primer wherein each extension product after separation from the beta-lactamase nucleic acid serves as a template for the synthesis of an extension product for the other primer of each pair;

separating the amplified products; and

analyzing the separated amplified products for a region characteristic of the beta-lactamase.

40. **(Once Amended)** The method of claim 39 wherein the primers are selected from the group of:

5' - CGT CGC TCA CCA TAT CTC CC - 3' (SEQ ID NO:34);

5' - CCT CTC GTG CTT TAG ACC CG - 3' (SEQ ID NO:35); and complements thereof.

42. **(Once Amended)** The method of claim 41 wherein the primers are selected from the group of:

5' - CGC TGG GAA ACC TAT TCG G - 3' (SEQ ID NO:36);

5' - CTG CCA TCC AGT TTC TTC GGG - 3' (SEQ ID NO:37); and complements thereof.

44. **(Once Amended)** The method of claim 43 wherein the primers are selected from the group of:

5' - GGT GGC ATT GAC AAA TTC TGG - 3' (SEQ ID NO:38);

5' - CCC ACC ATG CGA CAC CAG - 3' (SEQ ID NO:39); and complements thereof.

46. **(Once Amended)** The method of claim 45 wherein the primers are selected from the group of:

5' - TGT GCA ACG CAA ATG GCA C - 3' (SEQ ID NO:40);

5' - CGA CCC CAA GTT TCC TGT AAG TG - 3' (SEQ ID NO:41); and complements thereof.

48. **(Once Amended)** The method of claim 47 wherein the primers are selected from the group of:

5' - AGG CAC GAT AGT TGT GGC AGA C - 3' (SEQ ID NO:42);

5' - CAC TCA ACC CAT CCT ACC CAC C - 3' (SEQ ID NO:43); and complements thereof.

49. **(Once Amended)** A diagnostic kit for detecting an OXA family beta-lactamase which comprises packaging, containing, separately packaged:

(a) at least one primer pair capable of hybridizing to beta-lactamase nucleic acid of interest;

(b) a positive and negative control; and

(c) a protocol for identification of the beta-lactamase nucleic acid of interest.

***Preliminary Amendment***

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*Serial No.: Unknown (Parent Serial No. 09/407,818)*

*Filed: Herewith (Parent: September 28, 1999)*

*Title: PRIMERS FOR USE IN DETECTING BETA-LACTAMASES*

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**Remarks**

Claims 1-11, 18-38, and 50 have been canceled, claims 12-17, 40, 42, 44, 46, 48, and 49 have been amended, and claims 12-17, 39-49, and 51 are currently pending. Claims 12-17, 40, 42, 44, 46, 48, and 49 have been amended to clarify the invention. The amendments to claims 12-17, 40, 42, 44, 46, 48, and 49 are either specifically supported by the specification and the originally filed claims or would be readily understood by one of skill in the art. No new matter has been added and Applicants request entry of the above amendments.

The specification is amended to add a Statement of Related Applications section.

Applicants respectfully request that the Preliminary Amendment described herein be entered into the record prior to examination and consideration of the above-identified divisional application.

If the Examiner wishes to discuss any issues concerning this communication by telephone, please contact the below-signed attorney at (612)305-1217.

If additional fees are deemed necessary in this instance, please charge Deposit Account No. 13-4895.

**Preliminary Amendment**

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Title: PRIMERS FOR USE IN DETECTING BETA-LACTAMASES

**Conclusion**

The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if there are any questions regarding this Preliminary Amendment or if prosecution of this application may be assisted thereby.

Respectfully submitted,  
Hanson et al.,  
By their Representatives,  
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Date of Deposit March 21, 2001

I hereby certify that this paper and/or fee is/are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Attn: Box Patent Application, Washington, D. C. 20231

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